

CALIFORNIA COASTAL COMMISSION

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REGULAR CALENDAR
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-01-139

Applicant: Robert and Wanda Monroe Agent: Walt Crampton

Description: Construction of erodible concrete infill within a bluff notch undercut approximately 50 ft.-long, 11 to 17 ft.-high and 6 to 17 feet in depth which will be colored and textured to match the surrounding bluff.

Site: On the public beach below 197 Pacific Avenue, Solana Beach. APN No.: 263-323-05

Substantive File Documents: City of Solana Beach General Plan and Zoning Ordinance; City of Solana Beach Director Use Permit (DUP) 17-00-11; "Geotechnical Investigation and Project Analysis Sea Cave Infill 149 & 197 Pacific Avenue" by Group Delta Consultants dated July 21, 2000; "Coastal Development Permit Application Sea-Cave/Notch Infill 197 Pacific Avenue" letter by TerraCosta Consulting Group" dated August 24, 2001; "Clarifications and Additional Information Sea-Cave/Notch Infill 197 Pacific Avenue" by TerraCosta Consulting Group dated November 27, 2001; CDP Nos.: 6-83-690/Monroe; 6-98-148/City of Solana Beach; 6-99-91/Becker; 6-99-103/Coastal Preservation Assoc.; 6-00-35/Presnell, Ratowski; 6-00-36/Corn, Scism and 6-00-66/Pierce, Monroe.

STAFF NOTES:

Summary of Staff's Preliminary Recommendation: Staff is recommending denial of the subject notch infill as it is proposed as a preemptive protection measure and is not required to protect the existing structure at the top of the bluff. The proposal will result in inconsistencies with Chapter 3 policies of the Coastal Act related to alteration of

natural landforms along bluffs and cliffs, public access and visual resources. In addition, the applicant and the City have not reviewed the subject proposal in the context of a comprehensive plan addressing shoreline erosion problems facing the City's shoreline.

I. PRELIMINARY STAFF RECOMMENDATION:

MOTION: *I move that the Commission approve Coastal Development Permit No. 6-01-139 for the development proposed by the applicant.*

STAFF RECOMMENDATION OF DENIAL:

Staff recommends a **NO** vote. Failure of this motion will result in denial of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO DENY THE PERMIT:

The Commission hereby denies a coastal development permit for the proposed development on the ground that the development will not conform with the policies of Chapter 3 of the Coastal Act and will prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

II. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description/History. The proposed project involves filling of approximately 50 lineal feet of notch/undercut area at the base of an approximately 88 foot high coastal bluff below an existing single-family residence in the City of Solana Beach. The notch/undercut area is located at the base of the bluff and measures approximately 50 feet in length, and ranges from 11 to 17 feet high and 6 to 17 feet in depth. The notch/undercut area commences approximately 250 feet north of Fletcher Cove Park in Solana Beach. The bluffs and beach at the project site are in public ownership. The applicant is also proposing to contribute an in-lieu fee of \$12,243.00 to the SANDAG sand replenishment fund in order to mitigate for the loss of sand contribution to the beach resulting from the project.

The proposed notch fill consists of a colored and textured erodible concrete mixture designed to match the natural appearance of the surrounding bluffs and to erode at the same rate as the rest of the bluff face. The Commission has previously reviewed an

application to fill the subject notch/undercut area along with a request to fill a seacave located on the south side of the subject site (CDP No. 6-00-66/Pierce, Monroe). At its October 2000 hearing, the Commission approved the fill of the seacave located beneath 141 Pacific Avenue because it was demonstrated that the residence at the top of the bluff was threatened by the seacave's potential collapse. However, the Commission did not approve the fill of the notch below 197 Pacific Avenue because it was proposed as a preventive measure, not required to protect the existing residence and insufficient information was presented to demonstrate that the fill could be designed to match the surrounding bluffs and erode at the same rate as the natural bluffs.

The residence at the top of the bluff was constructed in approximately 1985 pursuant to CDP No. 6-83-690 (Monroe) and currently is setback approximately 32 feet from the edge of the bluff. The coastal development permit was approved without special conditions.

The City of Solana Beach does not yet have a certified LCP. Therefore, the Chapter 3 policies of the Coastal Act are the standard of review.

3. Geologic Conditions and Hazards. Section 30235 of the Coastal Act states, in part:

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

In addition, Section 30253 of the Coastal Act states, in part:

New development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs...

The proposed project involves filling a 50-foot long notch/undercut area on the public beach at the base of the publicly-owned bluffs below an existing single-family residence. The applicant's geotechnical report identifies that the residence at 197 Pacific lies approximately 32 feet from the edge of the bluff. The proposed fill would range from 11 to 17 feet in height and from 6 to 17 feet in depth and would consist of an erodible mixture that is designed to erode at the same rate as the rest of the bluff face. An approximately 400-foot long notch/undercut area that has been filled with erodible

concrete material similar to what is proposed by the applicant is located immediately north and adjacent to the proposed notch fill area. In addition, an approximately 50 ft. long seacave located adjacent and south of the proposed notch fill has also been filled with the same erodible and textured fill material proposed herein. Both the 400 ft.-long seacave/notch area and the 50 ft.-long seacave fills have only recently been approved and completed (CDP Nos. 6-99-103/Coastal Preservation Assoc. and 6-00-66/Monroe, Pierce). The subject notch fill would represent the fill of the approximately 50 ft. long gap between the filled notch/undercut area to the north and the filled seacave to the south.

The terms “seacave” and “notch/undercut area”, while sometimes used interchangeably, are not necessarily describing the same thing. They can be distinguished from each other by, among other means, the way they are formed and collapse. While both are created at the toe of a coastal bluff as a result of the abrasive effects of wave action, typically, seacaves in Solana Beach form along fissures and fractures in the lower Torrey Sandstone formation perpendicular to the face of the bluff and may extend deep into the face the bluff; the number and orientation of the fractures influence the size and rate of formation of the seacaves. Removal of bluff material within seacaves can occur very rapidly as waves tunnel through the caves along the fractures and fissures during winter storms and high tides. Thus, a series of storms or even a single storm event can cause them to enlarge and trigger their collapse. In addition, because seacaves typically extend deeper into the bluff than notch undercut areas, their collapse can be much more catastrophic, affecting a much larger area of the bluff, and extending far inland.

In contrast, notch/undercut areas are typically formed as a result of a more gradual process of wave action eroding the toe of the bluff, forming notches (with overhanging bluff materials) that typically run parallel to the bluff face. As the notch undercut area enlarges, the bluff material above it may lose support. This notch formation can occur over a long time period; in contrast sea caves can form and collapse quickly, even during a single storm event. For a notch or undercut, the gradual loss of support, along with any structural weakness in the Torrey Sandstone formation, eventually leads to a block-like failure and retreat of the upper bluff.

An additional geologic feature of the bluffs along the Solana Beach shoreline which can accelerate the natural process of bluff sloughage is the presence of a layer of “clean sands” within the mid-bluff area. The presence of this clean sands lens within the bluffs along the Solana Beach shoreline has previously been identified in geotechnical reports submitted in conjunction with seawall, seacave and notch infill projects south of the subject site (ref. CDP #6-99-100/Presnell, et. al, #6-99-103/ Coastal Preservation Association, 6-00-66/Pierce, Monroe). These reports document that the layer of clean sands extends south to Fletcher Cove. In addition, an exposed clean sands layer has been observed in the sections of the bluff adjacent to Tide Beach Park, approximately ½ mile north of the subject site, suggesting the layer extends at least as far north as Tide Beach.

According to geotechnical reports submitted with earlier shoreline protective applications, the clean sand layer is a very loose sandy material with a limited amount of tension and a very minor amount of cohesion, both of which cause the sandy material to

dissipate easily, making this clean sand layer, once exposed, susceptible to wind blown erosion and continued sloughing as the sands dries out and loses the tension that initially held the materials together. Once exposed, gentle sea breezes and any other perturbations, such as landing birds or low-flying helicopters, can be sufficient triggers of small or large volume bluff collapses, since the loss of the clean sands eliminates the support for the overlying, slightly more cemented, terrace deposits.

While the applicant's engineer has not specifically identified the presence of a layer of clean sands above the subject notch/undercut area, it is his opinion that it exists. Test borings performed in association with development at 249 Pacific Avenue approximately 650 feet north of the subject site confirm its presence and it is also visible adjacent to Fletcher Cove south of the subject site. Therefore, the collapse of the subject notch could expose clean sands and trigger future upper bluff sloughage, eventually resulting in a threat to the structures at the top of the bluff. In contrast, if the subject site contained a more typical seacave, depending on its extent and amount of fracturing, its collapse could result in an immediate threat to the structures at the top of the bluff. In review of the earlier request to fill the subject notch along with the adjacent seacave (CDP No. 6-00-66/Pierce, Monroe), the Commission recognized these distinctions and determined that the collapse of the seacave would result in an immediate threat to the residence while the collapse of the adjacent notch/undercut area would not.

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" solutions alter natural shoreline processes. Thus, such devices are required to be approved only when necessary to protect existing structures. In this particular case, the applicant's engineer has documented that there is no immediate threat to the bluff-top residence.

At the present time, the residence at 197 Pacific is located about 32 feet from the top of the bluff along the northerly side of the lot. Should the notch collapse in the near future, the structure would most likely not be immediately threatened, although such a collapse would likely flank the southerly end of the existing infill at 201 Pacific Avenue. The proposed fill is not intended to protect a principle structure in imminent peril, but rather to protect the integrity of the mature and scenic bluff above the notch, including the sloping bluff that has been shown to be susceptible to sudden and catastrophic collapses, placing the beach-going public in peril and initiating sequences of continuing upper-bluff failures.

("Clarifications and Additional Information Sea-Cave/Notch Infill 197 Pacific Avenue" by TerraCosta Consulting Group dated November 27, 2001)

The Commission's staff geologist and coastal engineer have reviewed the applicant's geotechnical information and concur that the residence at the top of the bluff is not currently threatened. Therefore, since the residence is not currently threatened, the Commission is not required to approve the notch/undercut infill under Section 30235 of the Coastal Act.

Impacts to Coastal Resources from Shoreline Protection

A notch fill using erodible concrete is a small structural measure designed to maintain the bluff in its current configuration. There has been much discussion about whether this is or is not a seawall. The Corps of Engineers Shore Protection Manual defines a seawall as, "A structure separating land and water areas, primarily designed to prevent erosion and other damage due to wave action." Using this definition, the proposed notch fill is a seawall, albeit a small one. And while the notch fill may have less impact to coastal resources than a larger, heavily reinforced vertical wall, the notch fill will exhibit most of the characteristics of other seawalls, only differing in the extent and scale of impact.

Construction of seawalls and/or other forms of shoreline protection can result in significant adverse impacts to public resources, including loss of the public sandy beach area displaced by the structure, "permanently" fixing the back of the beach, which leads to the narrowing and eventual disappearance of the beach in front of the structure, and a reduction or elimination of sand contribution to the beach from the bluff. Other impacts of shoreline protective structures include sand loss from the beach due to wave reflection and scour, accelerated erosion on adjacent unprotected properties and the adverse visual impacts associated with construction of shore/bluff protective device on the contrasting natural bluffs.

The natural shoreline processes referenced in Section 30235, such as the formation and retention of sandy beaches, can be significantly altered by construction of shoreline protective structures, since bluff retreat is one of several ways that beach area and beach quality sand is added to the shoreline. This retreat is a natural process resulting from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse, saturation of the bluff soil from ground water causing the bluff to slough off and natural bluff deterioration. When a shoreline protective structure is constructed on the beach at the toe of the bluff, it directly impedes these natural processes.

Some of the effects of a shoreline protective structure on the beach such as scour, end effects and modification to the beach profile are temporary or difficult to distinguish from all the other actions which modify the shoreline. Structures also have non-quantifiable effects to the character of the shoreline and visual quality. However, some of the effects which a structure may have on natural shoreline processes can be quantified. Three of the effects from a shoreline protective device which can be quantified are: 1) loss of the beach area on which the structure is located; 2) the long-term loss of beach which will result when the back beach location is fixed on an eroding shoreline; and 3) the amount of material which would have been supplied to the beach if the back beach or bluff were to erode naturally.

Loss of beach material and loss of beach area are two separate concerns. A beach is the result of both sandy material and a physical area between the water and the back beach. Thus, beach area is not simply a factor of the quantity of sandy beach material. In Solana Beach, the shoreline is a shallow bedrock layer covered by a thin veneer of sand. The

bedrock layer provides an area for collection of sandy material. The sand material is important to the overall beach experience and also provides a buffer between waves and the bluffs, but even without the sand, the bedrock layer provides an area for coastal access between the coastal bluff and the ocean.

Filling seacaves or notches have some, but not all, of the same impacts as larger, reinforced concrete walls. Like larger seawalls, a seacave or notch/undercut fill prevents or reduces the rate of landward retreat of the bluff. Thus, the sandy material of the bluff does not contribute to the beach as it eventually would if the site were left unprotected and the bluffs allowed to erode naturally. By reducing the overall rate of bluff retreat, filling of seacaves or notch/undercut areas does adversely impact beach access and recreation, by reducing the input of bluff material to the littoral sediment supply. Seacave plugs or notch fills tend to be smaller in height and width and thus less visually obtrusive than seawalls; however, they do alter the natural landform of the bluffs, and, if not carefully constructed and monitored, can be very conspicuous.

Unlike a seawall, however, seacave and notch fills are generally set into the bluff face and do not take up a portion of the beach seaward of the bluff face that would otherwise be available for public use. Further, notch fills do not prevent the erosion of bluff face material onto the beach via subaerial erosion since they do not cover any portion of the upper bluff as a seawall or upper bluff work would. In the past, seacaves and notches have been typically filled with a concrete material that permanently fixed the back of beach, similar to a seawall. In the last several years, most fill projects have been approved using a “lean” concrete mixture designed to erode at approximately the same rate as the surrounding bluffs. Because the applicants’ engineer characterized these previously approved infills as “erodible”, to erode at the same rate as the surrounding bluffs, the Commission did not believe the back of the beach would be permanently fixed (ref CDP 6-99-103/ Coastal Preservation Association; 6-00-66/Pierce, Monroe; 6-00-36/Corn, Scism; 6-98-148/City of Solana Beach; 6-99-91/Becker).

However, in this particular case, the applicant’s engineer is now asserting that the erodible notch fill will be maintained in a manner that it will remain in line with the upper bluff face. It will not project seaward of the upper bluff profile, but it will not mimic the retreat of an unprotected bluff that will continue to experience wave action, notch formation and notch collapse. The applicant’s engineer anticipates that this bluff will be relatively stable if the notch collapse process can be prevented, and the remaining retreat processes will be limited to subaerial erosion, gullying and other surficial sloughage. Without the notch collapse, bluff retreat rates are estimated, by the applicant’s engineer, to be confined to gradual chronic retreat of a few inches a decade, rather than the episodic block retreats that are occurring currently. The infill will be designed using erodible concrete, it is also being designed to be resurfaced as wear occurs such that it will be maintained in its approved location, with a small amount of retreat as the upper bluff material is eroded. As such, the infill will effectively stop the retreat of the upper bluff.

Based on the above discussion, the proposed notch fill project would have impacts on shoreline sand supply, very similar to the impacts of a seawall. If the fill material erodes at the same rate as the bluff but is resurfaced on a regular basis, the fill would permanently fix the back beach and eliminate the sand contribution from the bluff. The supply of sand in this area is limited and, therefore, any loss can be considered significant. In any case, since the proposed fill has not been identified as necessary to protect existing development and will further diminish the supply of sand in the area, Section 30235 of the Coastal Act does not require approval of the project.

Alternatives.

The applicant's engineer has examined a series of project alternatives including no project, removal and relocation of the residence, underpinning of the residence, placement of rip-rap at the toe of the bluff, construction of lower seawall and beach nourishment.

No Project Alternative. The applicant's engineer has identified that unless the project is approved, the notch will continue to erode and eventually collapse. However, the applicant's representative acknowledges the collapse will likely not threaten the residence. According to the applicant's engineer, this alternative will eventually result in the need for larger more obtrusive shoreline protective devices such as seawalls or upper bluff walls. The future proposed alternatives will depend in large part upon the extent of retreat from the notch collapse and whether or not a clean sand lense is exposed.

Relocation or Removal of Residences. The geotechnical report for the earlier request for infill at the subject site (6-00-66/Pierce, Monroe) states that the residence at 197 Pacific is located 5 feet easterly of the street right-of-way line (Geotechnical Investigation and Project Analysis Sea-Cave Infill 149-197 Pacific Avenue" by Group Delta Consultants, dated July 21, 2000). While within the street right-of-way, an examination of the site plan indicates that the subject residence is one of the few residences along this section of Pacific Avenue that is not built out to street. The report states that "[w]hile it may be physically possible to demolish and reconstruct either of the existing structures at a greater distance from the bluff top, along the westerly side of Pacific Avenue, the main impediment to this is the narrow distance between the bluff top and the westerly right-of-way line of Pacific Avenue." Thus, while it may not be possible to relocate the entire home landward of its current location, it may be possible to remove seaward portions of the homes that may be threatened.

Underpinnings. A letter from the applicant's engineer ("Clarifications and Additional Information Seacave/Notch Infill 197 Pacific Avenue" from TerraCosta dated November 27, 2001) identifies that underpinning of the residential structure would be an alternative to the proposed notch fill. The letter does not provide details of the underpinning alternative, but instead emphasizes that underpinning of the residences will not prevent the collapse of the existing overhang and would result in the eventual exposure of the underpinnings.

Rip-rap or Seawall. The applicant's engineer has examined the alternative of placing rip-rap or constructing a seawall at the base of the bluff and has concluded that such alternatives would involve more adverse impacts to the public resources because such structures would be substantially higher and occupy more beach area than the proposed infill.

Beach Nourishment. The applicant's engineer has acknowledged that "large-scale beach nourishment" would be long-term solution to coastal erosion. However, the engineer contends that even with beach nourishment, seasonal variations in the beach elevation will not provide long-term support for the notch overhang and it will eventually collapse.

As previously described, the existing residence at the top of the bluff is not currently threatened and, under Section 30235, the Commission is not required to approve a shoreline protective structure. The applicant is proposing fill of the 50 foot-long notch/undercut area as a preventive measure to protect the beach-going public from the threat of collapse and to reduce the likelihood of upper bluff failures that could threaten the residences in the future. The applicant's original geotechnical report from July of 2000 and subsequent letters indicates that underpinning of the residence or relocation of the residence may be alternatives to the proposed notch/undercut fill in terms of protecting the existing development. While underpinning and relocation of the residence will not prevent the notch from collapsing, these alternatives would reduce the risk the blufftop structures from any subsequent upper bluff failure. Since the proposed development is not required to be approved and will result in impacts to shoreline sand supply and because there are less environmentally damaging alternatives, the Commission finds the proposed development to be inconsistent with Section 30235 and 30253 of the Coastal Act.

3. Visual Resources. Section 30251 of the Act states, in part:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas...

The beaches and bluffs along the Solana Beach shoreline are a natural resource. Structures on the face of the bluffs, no matter how "natural" their appearance, detract from the natural beauty and scenic resources of the bluffs and shoreline. The proposed development is located on the face of a coastal bluff at beach level. Undercut bluffs and seacaves are fairly prominent features of the shoreline in this area, and filling this area will alter the natural appearance of the bluffs. The applicants are proposing the use of erodible fill material which will be colored and textured to approximate the appearance of the surrounding bluffs. However, matching fill material to the appearance of natural bluffs can be a tricky process, as it can take weeks or even months before the material

fully cures, and thus it is difficult to tell at the time of application how well the fill material will blend into the surrounding natural bluffs. In addition, once cured, weathering can change the appearance of either the infill or the surrounding bluffs. Thus, even if the notch fills matches the natural bluffs closely one year, several years later there may be a distinct difference in appearance. Thus, diligent monitoring and maintenance is important.

Another difficulty involved with the appearance of the infill is the ability of the infill to erode at a rate similar to the surrounding natural bluffs. Unless the infill erodes at the same rate as the surrounding bluffs, the infill could eventually extend further seaward than the receding bluffs. In its earlier decision to not approve the subject infill (6-00-66/Pierce, Monroe) or the infill below 245 and 249 Pacific Avenue (6-00-35/Presnell, Ratowski), the Commission determined that it was premature to approve additional preventive measures involving colored and textured erodible concrete until it had been determined whether such measures could be proven effective as designed and not cause adverse visual or geologic concerns. The Commission had recently approved several seacave and notch infill projects involving the use of such fill and asked that documentation on the effective those developments be evaluated before approving similar preventive projects. These projects included: an approximately 400 foot-long section of seacave/notch undercut adjacent to the north side of the subject site (ref. CDP 6-99-103/ Coastal Preservation Association); the seacave fill on the south side of the subject site (6-00-66/Pierce, Monroe); a notch fill north of the subject site below 311 and 319 Pacific Avenue (6-00-36/Corn, Scism); a seacave fill at Tide Beach Park (6-98-148/City of Solana Beach); and seacave fills north of Tide Beach Park (6-99-91/Becker). Commission staff has visited the site of these projects and has determined that while two of the above-cited projects appear to be working as designed and closely approximate the visual appearance of the surrounding bluffs, three of the projects are not working as proposed. The south end of the 400 ft.-long infill adjacent to the subject site has been subject to end effects and is separated from the face of the bluff. In addition, several chunks from the face of the infill appear to have fallen off leaving areas on the face that do not appear to be natural or colored similar to the bluffs. The notch infill below 311 and 319 Pacific does not match the surrounding bluffs. Finally, the seacave fill at Tide Beach Park has also separated from the face of the bluff on its south side and overall does not appear to be colored and textured to match the surrounding bluffs. In recent weeks the City of Solana Beach has initiated repairs to the seacave fill at Tide Beach Park, however, it is too early to determine whether the repairs are effective or consistent with the requirements of the coastal permit (ref. CDP 6-98-148/City of Solana Beach). Based on these examples, the effectiveness of colored and textured erodible concrete as infill for notches and seacaves along the Solana Beach shoreline has not been successfully demonstrated.

Each of the above-described Commission approved projects was conditioned to be monitored and maintained over its lifetime. The reports were generally required to be submitted to the Executive Director yearly for the first three years following construction and each three years thereafter. The reports were required to monitor the effectiveness of the visual treatments and erodibility of the material and, if repairs were necessary to

maintain the visual and erodible design standards, the applicant was required to submit an application for repairs within 3 months of the discovery of needed work. However, it has been determined that monitoring and maintenance has not been diligently pursued as required. To date only one of the above-cited applicants have submitted a monitoring report (6-00-91/Becker). As noted above, the notch infill projects completed to date have not demonstrated to the Commission that they can be colored and texture and erode similar to the natural bluff. It may be that when the other applicants submit monitoring reports and perform any needed repairs as required, the effectiveness of the seacave and notch infills could be better demonstrated. However, without successful implementation of the previous Commission approved conditions, it is not yet possible to determine the effectiveness of the colored and textured erodible infill.

The proposed notch/undercut fill will likely result in significant visual impacts to the shoreline because it has not been adequately demonstrated that the color and texture of the fill can be designed and maintained to closely match the natural appearance of the surrounding bluffs and that end effects associated with the fill can adequately be addressed. As previously described, the subject proposal is not necessary to protect the existing residential structures and would adversely affect the visual resources of the natural bluff. Therefore, the Commission finds that the subject development is inconsistent with Section 30251 of the Coastal Act.

5. Public Access. Many policies of the Coastal Act address the provision, protection and enhancement of public access to and along the shoreline. The policies that apply in this case are the following:

Section 30210.

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211.

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

In addition Section 30240(b) of the Act is applicable and states:

- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which

would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Finally, Section 20252 of the Act states, in part, that:

The location and amount of new development should maintain and enhance public access to the coast . . .

The subject project is located on the bluff formation directly adjacent to a public beach. Public lateral access is available along the entire stretch of coastline in this area, mostly at low tides; however, vertical access is available only at a limited number of public accessways. Because of the nature of the topography of the area, with steep, fragile coastal bluffs between the first public roadway and the coastline, and the existing, highly developed pattern of development, the provision of additional vertical public access adjacent to the subject site is not practical at this time. In addition, there is existing public access approximately 250 ft. south of the subject site at the Fletcher Cove. The proposed notch/undercut filling would not impact this accessway.

Shoreline protection projects do have the potential to impact existing lateral access along the beach. Structures which fix the back of the beach stop the landward migration of the beach profile while the shoreward edge continues to erode, thereby reducing the amount of dry sandy beach available to the public. The proposed notch/undercut fill has been designed to erode with the natural bluffs, but also to be resurfaced as it erodes and thus, similar to a seawall, will permanently fix the back of the beach. However, if the infill performs as designed, the project will effectively stop or delay the natural blockfalls of bluff material that currently provide sand to the beach in this area. The loss of sand contribution to the beach reduce the beach area available for public access and recreation. As stated elsewhere in these findings, Section 30235 of the Act allows for the use of such a device where it is required to protect existing development that is threatened by erosion and where it has been designed to eliminate or mitigate adverse impacts upon shoreline sand supply. Although the applicants propose to mitigate the loss of sand through the payment of an in-lieu fee to SANDAG's sand replenishment program, the notch fill is a preventative measure only and not necessary to protect the existing residential structure from the imminent threat of erosion. In addition, while the payment of an in-lieu fee could address potential adverse effects on shoreline sand supply, the payment would not compensate for the adverse visual impacts of a seawall or the alteration of the natural bluffs.

Therefore, since the proposed development will result in the loss of sand to the beach which may affect the public's ability to access the shoreline, the Commission finds that the subject proposal will result in adverse impacts on beach access and public recreation inconsistent with Sections 30210, 30211, 30221, 30240(b) and 30252 of the Coastal Act and must be denied.

6. Local Coastal Planning. Section 30604 (a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted

development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, such a finding cannot be made.

The subject site was previously in the County of San Diego Local Coastal Program (LCP) jurisdiction, but is now within the boundaries of the City of Solana Beach. The City will, in all likelihood, prepare and submit a new LCP for the area to the Commission for review. Because of the incorporation of the City, the certified County of San Diego Local Coastal Program no longer applies to the area. However, the issues regarding protection of coastal resources in the area have been addressed by the Commission in its review of the San Diego County LUP and Implementing Ordinances. As such, the Commission will continue to utilize the San Diego County LCP documents for guidance in its review of development proposals in the City of Solana Beach until such time as the Commission certifies an LCP for the City.

In preparation of an LCP, the City of Solana Beach is faced with many of the same issues as the City of Encinitas, located immediately north of Solana Beach, whose LCP was certified by the Commission in March 1995. The City of Encinitas' LCP includes the intent to prepare a comprehensive plan to address the coastal bluff recession and shoreline erosion problems in the City. The plan will include at a minimum, bluff top setback requirements for new development and redevelopment; regulations for non-conforming structures, alternatives to shore/bluff protection such as beach sand replenishment, removal of threatened portions of a residence or the entire residence or underpinning existing structures; addressing bluff stability and the need for protective measures over the entire bluff (lower, mid and upper); impacts of shoreline structures on beach and sand area as well as mitigation for such impacts; impacts for groundwater and irrigation on bluff stability and visual impacts of necessary/required protective structures.

The bluffs in this section of the Solana Beach coastline are mostly in public ownership. Approval of the proposed project would send a signal that there is no need to address a range of non-structural alternatives to protect existing development and may preclude subsequent adoption of different approaches. It would be premature to commit the entire Solana Beach shoreline to armoring without a thorough analysis of alternatives. Planning for comprehensive protective measures should include a combination of approaches including limits on future bluff development, ground and surface water controls, beach replenishment, and even continual lower bluff protection constructed in substantial segments. Decisions regarding future shoreline protection must be done through a comprehensive planning effort that analyzes the impact of approving shoreline protection on the entire City shoreline. These issues of shoreline planning will need to be addressed in a comprehensive manner in the future through the City's LCP certification process.

The City of Solana Beach is currently in the process of developing its LCP. In the case of the subject development, the proposed notch fill along with similar types of notch/undercut areas have not been addressed in a comprehensive manner by either the City or the applicant. Based on the above findings, the proposed notch/undercut fill has been found to be inconsistent with the Chapter 3 policies of the Coastal Act in that the

proposed development will have unmitigated adverse impacts on public access, beach sand supply and visual resources of the area. In addition, the proposal involves a piecemeal approach to a region-wide problem. The applicants' residence does not face an immediate threat from erosion of the bluff, so waiting for comprehensive planning to occur does not endanger the applicants' property. Therefore, the Commission finds that approval of the proposed notch/undercut fill would prejudice the ability of the City of Solana Beach to complete a certifiable local coastal program.

7. California Environmental Quality Act (CEQA) Consistency. Section 13096 of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit to be supported by a finding showing the permit is consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project is inconsistent with the resource protection policies of the Coastal Act relating to shoreline sand supply, public access and visual resources. Alternatives to the proposed development include the no project alternative since the subject residence is not currently threatened. Therefore, the Commission finds that the proposed project is not the least environmentally damaging feasible alternative and is not consistent with CEQA.